

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Cary L. Bates, et al.	:	Date: June 18, 2007
Group Art Unit:	2192	:	IBM Corporation
Examiner:	J. Romano	:	Intellectual Property Law
Serial No.:	10/008,864	:	Dept. 917, Bldg. 006-1
Filed:	December 6, 2001	:	3605 Highway 52 North
Title:	STORING AND RESTORING SNAPSHOTS OF A COMPUTER PROCESS	:	Rochester, MN 55901

Commissioner for Patents
P.O. Box 1450
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**PARTIAL AMENDED APPEAL BRIEF IN SUPPORT OF APPEAL
FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS**

Sir:

This is a partial Amended Appeal Brief, submitted in response to the office action dated May 16, 2007. The office action objected to the “Status of Claims” and “Summary of Claimed Subject Matter” contained in the Brief. Appellants herewith submit a replacement “Status of Claims” and ”Summary of Claimed Subject Matter”, to replace the corresponding sections of the previously filed Brief. Appellants note that there are no means-plus-function claims or step-plus-function claims herein. All other sections of the previously filed Brief remain unamended.

Docket No. CA920010004US1
Serial No. 10/008,864

3. Status of Claims

Claims 1, 2, 4, 5, 7-12 and 25-32 are pending and stand finally rejected. Claims 3, 6, and 13-24 are cancelled. The claims on appeal are set forth in the Appendix of Claims

5. Summary of Claimed Subject Matter

The invention herein relates to the use of automated tracing and debugging tools for analyzing and/or debugging computer programming code. Independent claims 1 and 12 recite methods of tracing, independent claim 25 recites an article of manufacture in the form of a data storage medium embodying a program for tracing (i.e, a computer program product), and independent claim 28 recites a data processing device which performs tracing.

In accordance with claim 1, a user specifies a computer process and a trigger expression to be traced during execution of the process (Spec. p. 4, line 4-6; p. 11, lines 21-26; p. 15, lines 6-19; p. 16, lines 3-16; Figs. 5 & 6B). The trigger expression is a non-executable data value having a state (as opposed to program instructions) (Spec. p. 4, lines 16-19; p. 11, lines 21-29; p. 12, lines 13-18). A trace tool then monitors execution of the specified process for occurrences of references to the specified trigger expression (Spec p. 11, lines 25-29; p. 17, lines 14-21, Fig. 7A, step 712). When the specified trigger expression is referenced, certain state data is stored, without interrupting execution of the specified process (Spec. p. 5, lines 3-6; p. 11, lines 25-29, p. 17, lines 14-22, Figs.

7A and 7B, steps 712-718). The state data can later be restored (Spec. p. 5, lines 7-8; p. 13, line 20 - p. 15, line 5; Fig. 4).

In accordance with claim 12, a user specifies a computer process and a trigger expression to be traced during execution of the process (Spec. p. 4, line 4-6; p. 11, lines 21-26; p. 15, lines 6-19; p. 16, lines 3-16; Figs. 5 & 6B). The trigger expression is an “L-value”, meaning a value that can be expressed as being left of an equal sign in a logical or arithmetic expression (Spec. p. 4, lines 16-19; p. 12, lines 13-18). A condition is imposed on the triggering expression (Spec p. 4, lines 10-11). A trace tool then monitors execution of the specified process for occurrences of references to the specified trigger expression (Spec p. 11, lines 25-29; p. 17, lines 14-21, Fig. 7A, step 712). When the specified trigger expression is referenced, certain state data is stored contingent on the condition being satisfied, without interrupting execution of the specified process (Spec. p. 4, lines 10-11; p. 5, lines 3-6; p. 11, lines 25-29; p. 15, lines 24-25; p. 17, lines 14-22; Fig. 5 feature 526; Figs. 7A and 7B, steps 712-718). State data (referred to as a “snapshot”) includes the state of the trigger expression and optional attachment expressions (Spec. p. 4, lines 11-23; p. 11, lines 26- p. 12, line 6; Figs. 3A and 3B). The state data can later be displayed and restored (Spec. p. 5, lines 6-8; p. 13, line 20 - p. 15, line 5; Fig. 4).

In accordance with claim 25, an article of manufacture in the form of a computer program product receives a user specification of a computer program and a trigger expression to be traced during execution of the process (Spec. p. 6, lines 20-25; p. 11, lines 21-26; p. 15, lines 6-19; p. 16, lines 3-16; Figs. 5 & 6B). The trigger expression is a non-executable data value having a state (as opposed to program instructions) (Spec. p. 4, lines 16-19; p. 11, lines 21-29; p. 12, lines 13-18). The article of manufacture program

then monitors execution of the user specified program for occurrences of references to the specified trigger expression (Spec p. 11, lines 25-29; p. 17, lines 14-21, Fig. 7A, step 712). When the specified trigger expression is referenced, certain state data is stored, without interrupting execution of the user specified program (Spec. p. 6, lines 25-27; p. 11, lines 25-29, p. 17, lines 14-22, Figs. 7A and 7B, steps 712-718). The state data can later be restored and displayed (Spec. p. 6, lines 27-28; p. 13, line 20 - p. 15, line 5; Fig. 4).

In accordance with claim 28, a digital data processing device includes a processor, memory, and at least one input device, the digital data processing device having a first (monitored) computer program and a second (monitoring) computer program (Spec. p. 5, lines 23-27; p. 8, line 6 - p. 9, line 19, Figs. 1 & 2). The second program receives a user specification of a trigger expression to be traced during execution of the first program (Spec. p. 11, lines 21-26; p. 15, lines 6-19; p. 16, lines 3-16; Figs. 5 & 6B). The trigger expression is a non-executable data value having a state (as opposed to program instructions) (Spec. p. 4, lines 16-19; p. 11, lines 21-29; p. 12, lines 13-18). The second program then monitors execution of the user specified program for occurrences of references to the specified trigger expression (Spec p. 5, lines 25-27; p. 11, lines 25-29; p. 17, lines 14-21, Fig. 7A, step 712). When the specified trigger expression is referenced, certain state data is stored, without interrupting execution of the first program, thus creating a history of the trigger expression during execution of the first program (Spec. p. 5, line 27 - p. 6, line 2; p. 11, lines 25-29, p. 17, lines 14-22, Figs. 7A and 7B, steps 712-718). The state data can later be displayed (Spec. p. 6, lines 1-2; p. 13, line 20 - p. 15, line 5; Fig. 4).

Date: June 18, 2007

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Roy W. Truelson', with a long horizontal flourish extending to the right.

By _____

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